

The waterfowl family.
The lowdown on down.
What's up with flight formation?
Snow geese observation.





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Geese

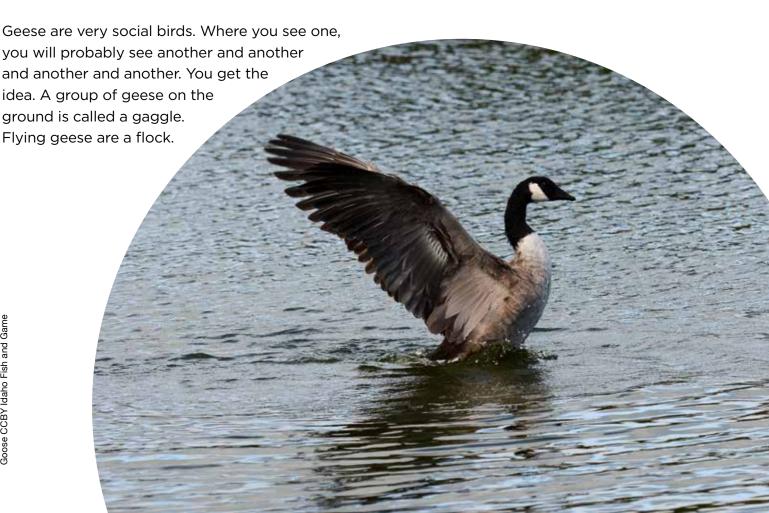
are members of the waterfowl family.

They are heavy-bodied birds, larger than ducks, but smaller than swans. Like swans, male and female geese look alike. Males, called ganders, tend to be larger than females. The female is called a goose.

Geese are just as comfortable on land as they are in the water. This is partly because their legs are under the center of their body. This makes walking on land easy for geese. That's good because geese spend a lot of time on land, finding food. Snow geese can walk 50 miles over several weeks searching for food. Geese eat mainly plants. They eat both aquatic plants and plants growing on land. Grasses are a favorite food of geese.

Often, a gaggle of geese is made up of related birds, parents and their offspring. As geese get ready to migrate, they form large flocks. All this getting together helps the geese find food and avoid predators. When one goose spots danger, the entire flock erupts into loud honking. This is enough noise to scare away most predators.

Here in Idaho, you can see four species of geese. These include Canada (not Canadian) goose, snow goose, Ross's goose and Greater Whitefronted goose. Of these, the Canada goose is both a migrant and a year-round resident of our state. The other three species migrate through Idaho in the spring and fall as they move between their nesting and wintering habitats.





Geese, ducks and swans make up the waterfowl family. This large group of birds has 154 species living in aquatic habitats all over the world. They range in size from small ducks with wingspans of just over one foot to large swans with nearly seven-foot wingspans. All species have webbed feet, making them expert swimmers. Male and female ducks can look quite different. This once caused a lot of confusion. Early naturalists sometimes thought they were different species! The males and females of geese and swans tend to look alike.

Waterfowl eat plants and animals. Some species eat only plants or only animals while others eat both. This is possible because waterfowl bills have special structures called lamellae (lamel-LEE). The lamellae are toothed comb-like structures that help waterfowl gather food. For example, the bill of a Canada goose is perfect for clipping grasses and eating seeds. A trumpeter swan has a bill that works well for gathering underwater plants. Some dabbling ducks like mallards, strain food from the water. In diving ducks like mergansers, the lamellae are sharp serrations along the bill. These help the duck catch and hold fish. An additional adaptation on the bill is the "nail" at the bill tip. This structure is used for both holding prey and removing seeds from plants.

Waterfowl nest in many locations including holes in trees, cliffs, old eagle nests, or on the ground. Their nests are lined with down feathers that help keep the eggs warm. When hatching occurs, the eggs tend to hatch at the same time. Baby waterfowl are called ducklings (ducks), cygnets (swans), or goslings (geese). As soon as they are dry, they leave the nest and follow their parents to nearby water. Unlike most baby birds, young waterfowl are able to walk, swim, and feed themselves only a few hours after hatching. These kinds of birds are called "precocial" (pre-CO-shall). They can take care of themselves shortly after they are born but still rely on their parents for warmth and protection from predators. Young waterfowl stay with their parents for most of the summer. Some family groups of swans and geese even migrate together in the fall.

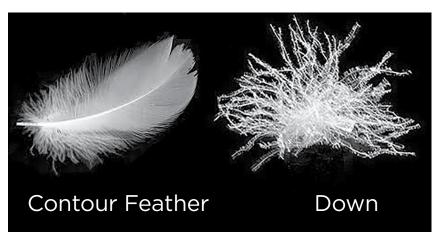
By mid to late summer, adult waterfowl lose their tail and flight feathers. This process is called molt. During this time, waterfowl cannot fly. It takes about a month for new feathers to grow. This happens just in time for fall migration. Waterfowl tend to migrate in large flocks. Some waterfowl migrate from northern Canada to spend the winter in Idaho. Other ducks that spend the summer in Idaho migrate to the southern United States and Mexico for the winter. No matter what the season, you are sure to see waterfowl in Idaho!



Geese live in some pretty cold places. Many geese nest in the Arctic where it stays chilly, even in summer. In order to survive, geese need to stay warm. Their secret to staying toasty is down.

Down feathers are the feathers closest to a goose's body. They are very fine with a loosely arranged structure. Most feathers are stiff because of their interlocking parts. These are called barbs and barbules. Down feathers are different. They are very flexible because their barbs and barbules are loose and wispy. This structure is really good at trapping air. Trapped air acts as insulation, holding in heat. The goose's outer feathers, called contour feathers, are stiff and flat. They form a wind and waterproof barrier that keeps geese warm and dry. You imitate a goose when you dress in layers before going outside. The shirt against your skin traps air. Additional layers of clothing also trap air to insulate your body. Your coat protects you from the wind and snow so you stay warm playing outdoors when it's cold.

Even baby geese have down. In fact, down is the only kind of feathers they have when they hatch. This first layer of down is called natal down. It keeps goslings warm. If the weather turns rainy or snowy, they stay dry by seeking shelter under their parents. As the goslings grow, their natal down is replaced by adult down. At the end of summer, the adult down is covered by an outer layer of feathers called contour feathers. These feathers give the young birds their grown-up look.



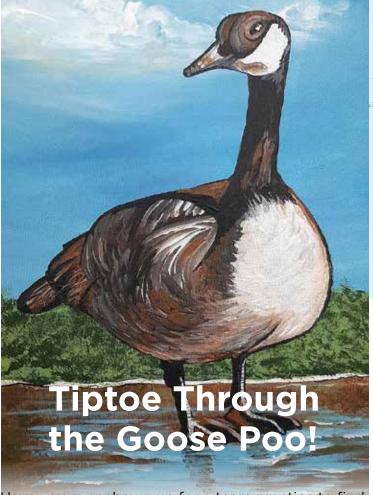


Seeing and hearing flocks of geese flying overhead is a sure sign of fall. These birds have left their northern breeding areas and are heading south for the winter. The hummingbirds that zipped around your yard are also gone. So are many of the small songbirds you heard in the summer. Suddenly, deer are on the hillside above your favorite hiking trail. These animals are all migrating. Migration helps animals survive the winter. They move from one area of habitat to another. Migrating helps them avoid the cold and find food, water and shelter that they need. Migrations can be long like the thousands of miles that some bird species fly. Other animals, like mule deer, have shorter migrations. They often travel less than a hundred miles from summer to winter ranges. No matter how far, migration is an important way many animals survive the winter.

Other animals live in the same habitat all year. These are residents. Their habitats provide them with everything they need in all seasons. Many residents also have special adaptations that help them tolerate the cold and snow. Their coats or feathers get thicker to keep them warm. They might shift from one kind of food to another. Resident songbirds like chickadees eat insects in the summer and seeds in winter. Some resident animals avoid winter by hibernating. Chipmunks, ground squirrels, bears, snakes and even some insects are examples of resident animals that hibernate. Sometimes, animals that usually migrate just don't. In some cases, this is because the

winter is mild. Animals can find the food they need to survive a warmer winter. Robins are a good example. During some winters, robins leave completely. In other winters, robins stay, eating fruits like crabapples and mountain ash berries. Canada geese are a good example of a bird that has both a migratory population and a resident population. In places where the geese are residents, when the migratory geese arrive, there are suddenly a whole lot of geese around. Many Idaho communities have both resident and migratory Canada geese.





Have you ever shown up for a team practice to find your field covered with goose poo? Maybe your favorite picnic site at the park has also turned into a poopy mess. Communities with resident Canada goose populations often have to deal with goose poo in parks, on sidewalks, or on any open grassy place. Yuck!

The problem gets worse when migratory geese join resident geese in the same area. Large numbers of animals living together make a lot of poop. And geese poop a lot--- snow geese poop six to 15 times an hour!

Geese are grazers. The grasses they eat are high in fiber. This makes the food move quickly through their digestive system. Beautiful lawns, green practice fields, parks, golf courses and other grassy areas are a fabulous cafeteria for geese. By planting all this grass, people have unintentionally invited geese to visit our communities. People have dreamed up all sorts of ways to keep geese off the grass. From using herding dogs to statues of coyotes to loud noises, people try to keep the geese away.

Fortunately, when the migratory geese leave and the resident geese start nesting, the problem becomes easier to deal with. Until then, be careful where you step!



Flight Formation

Migratory waterfowl often fly in V shapes, with one bird in the lead and the others following. Why is that? Do they just like that letter of the alphabet? Actually, it is all about energy.

The V shape is not a random choice by the birds. This shape gives the birds a big advantage while flying. Each bird in a V formation is flying just behind and slightly outside of the bird in front of it. The birds also perfectly time their wingbeats. This means that they all flap exactly the same way at the same speed. As each bird flaps its wings, air spirals off its wingtips toward the bird behind it. This spiraling is called tip vortex. It creates lift behind the bird. This extra lift helps make the flight of the next bird in line, easier. The bird in the front gets no benefit from tip vortex. It will tire more quickly than the rest of the group. Birds take care of this by taking turns leading the V.

Scientists have discovered that by taking advantage of tip vortex, a goose uses 20 to

30 percent less energy as it flies. That is a huge energy savings! If you had to flap your arms for a long time, you would want to save energy, too. Think about snow geese. They can fly over 600 miles nonstop. Their total migration can be 5000 miles! Canada geese might travel 1500 miles in a 24-hour period. You can see

how saving energy on these long flights is a big help to migratory geese.

Goose Watch

Imagine being outside on a late February day. You hear the distant sound of honking and see lines in the sky. The noise gets louder and you now see that the lines are birds. Their white bodies gleam against the blue sky and you can see their black wingtips flashing up and down. The noise gets louder and louder then, suddenly, a flock of several thousand birds descends, landing on a nearby pond. The snow geese have arrived!

This amazing sight happens every spring in southwest Idaho. The Fort Boise Wildlife Management Area (WMA) near Parma hosts 60,000 waterfowl each spring from late February through March. About 40,000 of these are geese, mainly snow geese. It is an important stopover area for migrating waterfowl. Stopover areas are places where migrating birds can rest, find food and stay safe from

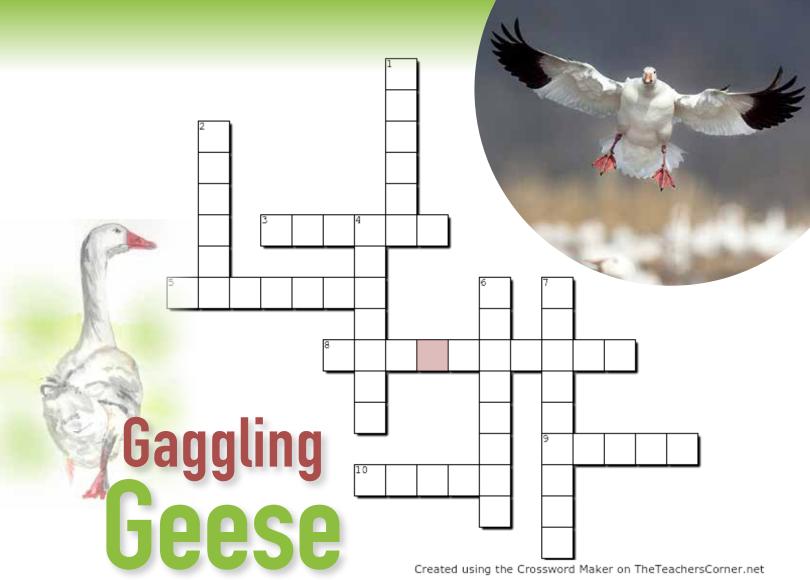


predators. They might stay at a stopover area for just a few days or for many weeks. The snow geese at Fort Boise stay for about six weeks before resuming their journey north.

Watching the snow geese is a great family outing. A viewing platform helps visitors watch the geese and other birds on the ponds. Bring binoculars to help you get close-up looks. The platform is very popular so remember to give others a chance to watch the birds. Mid-morning is a good time to observe the geese returning from nearby fields. For more information about viewing the snow geese, check out the Fort Boise WMA information on the Fish and Game website at

https://idfg.idaho.gov/wma/fort-boise
It's an experience you will never
forget!





Across

- The name for a group of geese on the ground.
- 5. This is what geese eat.
- 8. The name for spiraling air that help geese conserve energy when flying in a V pattern..
- 9. The name for a group of geese in flight.
- The name for a female goose.

Down

- 1. Geese are
- 2. The name for a male goose.
- 4. The name for a baby goose.
- A resting place for migrating birds.
- Geese are included in this family.

Volume 35 · Issue 6 · Geese · Feb. 2022

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Wildlife Express is published by the Idaho Department of Fish and Game

Editor: Adare Evans

Layout: Nancy Jasper

Contributors: Adare Evans, Vicky Runnoe

Lead Writer: Vicky Runnoe



WE WOULD LIKE TO HEAR FROM YOU!

If you have a letter, poem or question for Wildlife Express, it may be included in a future issue! Send it to: adare.evans@idfg.idaho.gov

Wildlife Express, Idaho Fish and Game PO Box 25, Boise, ID 83707